ABSTRACT

A specimen of an amniotic fluid is obtained and analyzed by GC/MS in order to generate a comprehensive metabolic profile. The profile is analyzed by comparing the levels of metabolites with normal levels of those compounds. Specific treatment is then prescribed for the metabolite levels that differ from the norm. These metabolites that are present in different levels than a normal specimen may be indicative of chromosomal abnormalities such as Down Syndrome. The method of the present invention is used to model the complex problem of a chromosomal abnormality as the sum of several simpler problems that may be treatable. The comprehensive metabolic profile is used to detect chromosomal abnormalities, to suggest treatments for fetal chromosomal abnormalities, and to monitor their effectiveness.